

**CALIFORNIA PUBLIC EMPLOYEES' RETIREMENT SYSTEM  
STATEMENT OF INVESTMENT POLICY**

**FOR  
CURRENCY OVERLAY PROGRAM**

**November 13, 2006 April 21, 2008**

*This Policy is effective immediately upon adoption and supersedes all previous currency overlay program policies. This Policy incorporates the Tactical Management ~~Program~~Portfolio, the Externally Managed Currency Overlay Program~~Portfolio~~—~~Externally Managed~~, the Internally Managed Passive Currency Overlay Program~~Portfolio~~—~~Internally Managed~~, and the Internally Managed Active Currency Overlay Program~~Portfolio~~—~~Internally Managed~~.*

**I. PURPOSE**

The CalPERS Total Fund Statement of Investment Policy, adopted by the CalPERS Investment Committee ("Committee"), sets forth CalPERS' overarching investment purposes and objectives with respect to all of its investment programs.

This document sets forth the investment policy ("~~the~~ Policy") for the Currency Overlay Program ("the Overlay Program"). The design of this Policy ensures that investors, managers, consultants, and other participants selected by the California Public Employees' Retirement System ("CalPERS") take prudent and careful action while managing the Overlay Program. Additionally, use of this Policy assures sufficient flexibility in managing investment risks and returns associated with the Overlay Program.

There are several components to the Overlay Program:

- A. ~~the~~ static hedge ratio;
- B. ~~t~~Tactical management of the hedge ratio (Attachment A); and
- C. ~~i~~lplementation of the Overlay Program through:
  - 1. Externally Managed Currency Overlay Portfolio~~Program~~ (Attachment B)—~~Externally Managed~~;
  - 2. Internally Managed Passive Currency Overlay Portfolio~~Program~~ (Attachment C)—~~Internally Managed~~; and,
  - 3. Internally Managed Active Currency Overlay Portfolio~~Program~~ (Attachment D)—~~Internally Managed~~.

~~There attached sections are several sections of this policy which reflect the components of the Overlay Program. This first section is intended as the explanation of the Overlay Program as a whole, and as the controlling Policy. Details of the tactical management of the hedge ratio are outlined in Attachment 1. Details of the Externally Managed Portfolio are in Attachment 2, The Passive Internally Managed Portfolio are in Attachment 3, and the Active Portfolio Internally Managed are in Attachment 4.~~

~~T<sub>he</sub> static ratio has been determined to be 25% of the currency weights of the Developed Markets portion of the International Equity Program by the System's Investment Committee ("the Investment Committee").~~

~~This Policy defines the tactical management of the hedge ratio and the implementation of the program through Externally and Internally managed Passive and Active approaches.~~

~~The design of this Policy ensures that the currency exposure of the California Public Employees' Retirement System's ("the System") international equity program is managed with prudence and care. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of international equity and other international investments.~~

~~This Policy will be the controlling document for Currency Overlay — Tactical Management Portfolio (Attachment 1), Currency Overlay Portfolio Externally Managed (Attachment 2), Passive Currency Overlay Portfolio — Internally Managed (Attachment 3), and the Active Currency Overlay Portfolio — Internally Managed (Attachment 4).~~

~~The Program may include other portfolios or other currency functions as they relate to the System without prior Investment Committee approval. Hedging activity in other asset classes shall be determined by the Senior Investment Officer (SIO) in the respective asset class, and implemented by the internal currency team.~~

The Policy herein is framed in terms of hedging for the Developed Markets portion of the International Equity Program because this is the only program to which currency overlay has long applied. To mitigate currency risk there have been hedges applied to particular strategies. In the event that the currency team may be asked to perform currency functions for other asset classes related to the prudent mitigation of currency risk, this Policy, coupled with any practical considerations specific to those asset classes, will govern unless and until a currency policy specific to those asset classes is approved.

## II. STRATEGIC OBJECTIVE

The Overlay Program shall be managed to accomplish the following:

- A. Lower return volatility of the International Equity Program; ~~is the primary objective of the Program;~~
- B. Enhance CalPERS' total return; ~~Return is the secondary consideration;~~
- C. ~~The Program should be able to h~~Hedge currency risk for other assets beyond International Equity; and
- D. Protect CalPERS' the System's International Equity Program from incurring large currency losses during the near term (one-to-three years), at reasonable cost, with effective cash flow management in the settlement of derivative positions; ~~and~~
- E. ~~Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law. [This statement is now included in the Total Fund Statement of Investment Policy.]~~

### III. ~~RESPONSIBILITIES AND DELEGATIONS~~

- A. ~~The **System's Investment Committee** ("the Investment Committee") is responsible for approving and amending the Policy. The Investment Committee delegates the responsibility for administering the Program through the Delegation of Authority (Delegation Nos. 89-13 and 06-03-INV).~~
- BA. ~~The **System's Investment Staff** CalPERS' Investment Staff ("the Staff") is responsible for~~ duties include, but are not limited to, the following:
  - 1. All aspects of portfolio management including monitoring, analyzing, and evaluating performance relative to the appropriate benchmark; ~~Developing and recommending the Policy to the Investment Committee;~~
  - 2. Reporting to the Committee annually for externally managed programs and quarterly for internally managed programs about the performance of the Overlay Program; ~~Developing and maintaining procedures manual, subject to periodic reviews and updates, and outlining Staff operational procedures used in implementing this Policy;~~
  - 3. Monitoring the implementation of, and compliance with, the Policy. Staff shall report concerns, problems, material changes, and all violations of the Policy at the next Committee meeting, or sooner if

deemed necessary. These reports shall include explanations of the violations and appropriate recommendations for corrective action. Implementing and adhering to the Policy;

~~4.Recommending changes to the Program, its guidelines or management practices, which are pertinent to ensure the continual achievement of the Program's objective;~~

~~5.Report quarterly all violations of the Policy to the Chief Investment Officer and at the next Investment Committee meeting with explanations.~~

~~6.Communicating with other Staff, as needed, regarding investment strategy and investment results;~~

~~7.Coordinating with the portfolio manager of the underlying equity portfolio and the System's master custodial bank to ensure that a clear understanding of the currency exposures of the underlying portfolio(s) exists with which the Program is overlaid;~~

~~8.Cooperating fully with other System Staff, the System's custodian, and General Pension Consultant on requests for information; and~~

~~9.Specific to attachment # 2, recommending action concerning outside money management firm(s) ("Managers") retained under contract to implement the Program in accordance with the External Investment Manager and Currency Overlay Manager Monitoring Policy. Duties may include making recommendations with respect to changes in the Manager's contractual guidelines or regarding any other aspect the Staff considers pertinent.~~

CB. The General Pension Consultant ("Consultant") is responsible for:

Monitoring, evaluating, and reporting periodically to the Committee, on the performance of the Overlay Program relative to the benchmark and Policy. The **General Pension Consultant** (the "General Pension Consultant") is responsible for monitoring and evaluating the Program's performance relative to the benchmark and Policy. The General Pension Consultant shall report to the Investment Committee on a quarterly basis, in accordance with its contract.

DC. The External Manager ("Manager") is responsible for all aspects of portfolio management as set forth in each Manager's contract with CalPERS and shall fulfill the following duties: Each **External Manager** is responsible for all aspects of portfolio management as set forth in its contract with the System and shall fulfill the following duties:

1. Communicate with the Staff, as needed, regarding investment strategy and investment results.
2. Monitor, analyze, and evaluate performance relative to the agreed-upon benchmark;
2. ~~Coordinate with the System's master custodial bank to ensure that there is a clear understanding of the currency exposures of the underlying portfolio(s) through which overlay of the Program exists; and~~
3. Cooperate fully with the ~~System~~ CalPERS's Staff, Custodian, and General Pension Consultant on requests for information.

#### IV. PERFORMANCE OBJECTIVE AND BENCHMARK

The primary concern shall be risk control with a secondary objective of return.

There are four separate parts to the Overlay Program and the performance objectives are outlined in the attachments.

~~The benchmark is the fully hedged currency return of the developed markets portion of the Passive International Equity Index Fund.~~

~~There are four separate parts to the Program and the performance objectives are outlined below:~~

- A. ~~The Tactical Management Portfolio, with the goal of adding return. Staff will incrementally add value relative to the static 25% hedge ratio of International Equity (details are in Attachment 1).~~
- B. ~~The Currency Overlay Portfolio- Externally Managed, with the primary objective of risk reduction and secondary consideration of return, shall achieve results specific to the prevailing currency market environment as follows:~~
  1. ~~In appreciating foreign currency environments, the Manager shall seek to capture approximately 60% of currency gains; and~~
  2. ~~In depreciating foreign currency environments, the Manager shall seek to limit losses to no more than 3% below the fully hedged benchmark; and.~~
  3. ~~In flat or trend less environments, the Manager shall approximate the benchmark results.~~

~~(Details are in Attachment 2).~~

~~C. Passive Currency Overlay Portfolio Internally Managed, with the primary objective of risk reduction: results shall approximate that of the benchmark, within +/- 50 basis points in a 12 month period~~

~~—— (Details are in Attachment 3).~~

~~D. Active Currency Overlay Portfolio Internally Managed with the primary objective of adding return.~~

~~1. Target information ratio goals are from 0.3 to 0.75.~~

~~2. Target losses to no more than 3% below the fully hedged benchmark.~~

~~(Details are in Attachment 4).~~

## **V. BENCHMARK**

~~A. Tactical Management Program Benchmark will be the static 25% hedge of the currency weights of the Developed International Equity Exposure.~~

~~B. The Currency Overlay Portfolio Externally Managed Benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

~~C. The Passive Currency Overlay Portfolio Internally Managed Benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

~~D. The Active Currency Overlay Portfolio Internally Managed Benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

## **V. INVESTMENT APPROACHES AND PARAMETERS**

The approaches and parameters for each of the four Overlay Programs are included in the attachments.

## **VI. DERIVATIVES AND LEVERAGE POLICY**

Any action or transaction not expressly permitted by this Policy is prohibited unless presented to and approved by the Committee.

## **VII. CALCULATIONS AND COMPUTATIONS GENERAL**

Investors, managers, consultants, and other participants selected by CalPERS the System shall make all calculations and computations on a market-value basis, as recorded by CalPERS the System's eCustodian.

## VIII. GLOSSARY OF TERMS

~~Definitions for k~~Key words used in this policy and attachments are defined ~~located in the Fixed Income Glossary of Terms which is included in CalPERS' the~~ System's Master Glossary of Terms.

### Currency Overlay – Externally Managed

Approved by the Policy Subcommittee:	August 11, 1999
Adopted by the Investment Committee:	October 18, 1999
Attached to the Currency Overlay Program:	August 15, 2005

### Passive Currency Overlay Program – Internally Managed

Approved by the Policy Subcommittee:	March 16, 2001
Adopted by the Investment Committee:	April 16, 2001
Attached to the Currency Overlay Program:	August 15, 2005

### Currency Overlay Program – Overarching Policy with Portfolio Attachments

Approved by the Policy Subcommittee:	June 10, 2005
Adopted by the Investment Committee:	August 15, 2005
Revised by the Policy Subcommittee:	October 16, 2006
Adopted by the Investment Committee:	November 13, 2006
<u>Revised by the Policy Subcommittee:</u>	<u>April 21, 2008</u>

## TACTICAL MANAGEMENT PORTFOLIO PROGRAM

November 13, 2006 April 21, 2008

### I. PURPOSE

This document sets forth the investment policy ("the Policy") for the Tactical Management Portfolio ("the Portfolio"). The design of this Policy ensures that the currency exposure of the California Public Employees' Retirement System's ("the System") international equity program is managed with prudence and care. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of international equity.

### II. STRATEGIC OBJECTIVES

The Program shall be managed to accomplish the following:

- A. Reduce the System's International Equity Program's risk due to currency volatility; and
- B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law. [This statement is now included in the Total Fund Statement of Investment Policy.]

### III. PERFORMANCE OBJECTIVE AND BENCHMARK

The performance objective of the Tactical Management Program ("Tactical Program") is to add value over an economic cycle (approximately 3-8 years) over what a static 25% hedge would have produced, for the entire Developed Markets portion of the International Equity assets.

The means to accomplish this objective is to have a separate account that holds currency contracts equal to the intended adjustment away from the 25% hedge. The change in the value of these contracts measures performance.

### IV. INVESTMENT APPROACHES AND PARAMETERS

#### A. Approach

A currency five-member staff committee ("staff committee"), consisting, at a minimum, of the Chief Investment Officer ("CIO"), and the Senior Investment Officer of Global Fixed Income ("SIO"), Senior Portfolio



Manager Fixed Income and the Portfolio Manager of Currency and Portfolio Manager International Research will seek to identify macro trends based on fundamental factors that have a high probability of success. Studies indicate that observable economic factors known to affect currency markets include, but are not limited to interest rate differentials, trade deficits, GDP growth, inflation, monetary policy, fiscal policy and productivity. These economic factors work slowly over time; therefore, the staff committee time focus will be over a cycle, typically 3 to 8 years. A shorter term approach does not always allow sufficient time for economic fundamentals to work their way through to be reflected in currency values. Therefore, it can be difficult for external managers to focus on long term inputs when those inputs can be overwhelmed by short term issues. The staff committee will seek to capitalize on CalPERS' the System's long term investment nature by focusing on the cyclical nature of developed currencies. The CIO would have veto power over any decision.

The variation of the hedge ratio shall be determined by considering the following:

1. Economic fundamentals which work over time;
2. Costs related to the hedge, particularly the cost of carry; and
3. Moves in the hedge ratio would only be made when convincing evidence exists for long term trends. Return on such decisions should be measured over a cycle, which is calculated in years. It is anticipated that there will be infrequent changes.

#### **B. Parameters**

The static hedge ratio is 25% of the currency weights of the Developed Markets portion of the International Equity assets. The staff committee may vary the hedge ratio  $\pm 5\%$  (implying a range of 20% to 30% for the hedge ratio.) The staff committee will meet every ~~three~~ 3 to ~~six~~ 6 months.

#### **V. BENCHMARK**

~~The benchmark for the program shall be the fully hedged currency return on a static 25% hedge ratio, and shall be a function of the International Equity Program.~~

**~~VI. GENERAL~~**

~~Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System.~~

**~~VII. GLOSSARY OF TERMS~~**

~~Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.~~

EXTERNALLY MANAGED CURRENCY OVERLAY PORTFOLIO PROGRAM-  
EXTERNALLY MANAGED

November 13, 2006April 21, 2008

I. **PURPOSE**

~~This document sets forth the investment policy ("the Policy") for the Currency Overlay Portfolio Externally Managed ("the Portfolio"). The design of this Policy ensures that investors, managers, consultants, or other participants selected by the California Public Employees' Retirement System ("the System") take prudent and careful action while managing the Program. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and capturing opportunities as they may occur.~~

III. **STRATEGIC OBJECTIVES**

~~Lowering the return volatility of the International Equity Program is the strategic objective of the International Equity Program. This~~The Externally Managed Currency Overlay Program ("External Program") shall be accomplished through the partial hedging of the currency exposure in the developed markets portion of CalPERS~~the System's~~ Passive International Equity Index Fund. This partial hedge is currently targeted at 25%.

~~The External Program shall employ techniques to balance risk reduction with hedging cost and cash flow management. Therefore, it is expected that only under rare circumstances shall the External p~~Program result in a 100% hedged (zero currency volatility) exposure.

~~The Program shall be managed to accomplish the following:~~

- ~~A. Protect the System's International Equity Program from incurring large currency losses during the near term (one to three years), at reasonable cost, with effective cash flow management in the settlement of derivative positions; and~~
- ~~B. Consider solely the interests of the System's participants and their beneficiaries in accordance with California State Law.~~

### **IIII. PERFORMANCE OBJECTIVES AND BENCHMARK**

The ~~Currency Overlay Portfolio~~ Externally Managed Program controls risk rather than generates return. The External Program shall achieve results specific to the prevailing currency market environment as follows:

- A. In appreciating foreign currency environments, the External Program Portfolio shall seek to capture approximately ~~sixty (60%)~~ percent of currency gains;
- B. In depreciating foreign currency environments, the External Program Portfolio shall seek to limit losses to no more than ~~three (3%)~~ percent below the fully hedged benchmark; and
- C. In flat or trendless environments, the External Program Portfolio shall approximate the benchmark results.

The External Program benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.

### **IIIV. INVESTMENT APPROACHES AND PARAMETERS**

#### **A. Approach**

- 1. The risk and return characteristics of the international equity assets subject to the ~~Currency Overlay Program~~ (hedged assets) shall differ significantly from the portion of the international equity assets outside the Overlay pProgram. Therefore, different strategic risk and return assumptions shall be developed for the Overlay Program for asset allocation planning purposes, in accordance with the Strategic Asset Allocation Strategy Policy, incorporated herein by reference. ~~The specific allocation of assets subject to the Currency Overlay Program shall be determined by the financial analysis prescribed under the Strategic Asset Allocation Policy and shall vary within ranges prescribed therein.~~
- 2. The Execution of the Currency External Overlay Program shall occur through a portfolio program(s)' investments in developed markets where currency market exposure is relatively predictable. Portfolios Programs most suitable are passive index funds or semi-active approaches.
- 3. The External Program shall be implemented through the retention of an external mManager(s). ~~The external manager selection shall~~

occur in accordance with ~~Section IV.B. of this Policy.~~

4. The viability of the External Program shall be reviewed continually, with a formal review at least every ~~five~~ 5 years.

**B. ~~External Manager Selection~~**

~~1. The System shall retain Manager(s) recognized for their expertise in Currency Overlay Programs with a multiple-manager structure and in approved derivative management. The Manager(s) shall be registered, or appropriately exempt from registration, with the Securities and Exchange Commission.~~

~~2. Manager(s) shall be selected in accordance with the System's Contract and Procurement Policy.~~

**B.C. ~~Investment Parameters~~**

1. The Manager(s) shall operate under a set of specific guidelines outlining their investment philosophies and approaches, representative portfolio characteristics, permissible and restricted securities and procedures, and performance objectives representative of their strategic role within the Overlay Program and the investment risk incurred.

2. ~~Implementation of this Program~~The Managers shall comply at all times with CalPERS'~~the System's~~ investment policies including, but not limited to, the following ~~criteria~~:

- a. Statement of Policy for Derivatives - External Money Managers; and,

- b. ~~External Investment Manager and Currency Overlay Manager Monitoring Policy; and~~

- eb. Manager-Specific Investment Management Guidelines.

3. The Manager(s) shall execute currency transactions in the forward currency markets or in related currency derivative instruments over the long currency positions of the underlying program ~~portfolio(s)~~ of assets assigned. ~~At no time shall Manager(s) assume any foreign equity positions in their own accounts.~~

4. The Manager(s) shall monitor their currency positions to avoid leverage, ~~regarding the net currency exposure of the underlying portfolio through a net long position in foreign currency forwards or~~

~~a net short position once the hedge and the underlying portfolio are combined. Currency positions taken shall constitute a designated hedge of the actual international assets identified in the underlying portfolio.~~

**V. BENCHMARK**

~~The Currency Overlay Portfolio Externally Managed Benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

**IV. DERIVATIVES AND LEVERAGE POLICY**

**A. Forwards, Options, and Swaps.**

1. Leverage shall be avoided as cited in Section III.V. BC. 4
2. The External Program Portfolio may buy or sell non-exchanged traded derivatives, which includes over-the-counter forwards, options, and swaps.
3. Bona fide hedging of foreign currency exposure is the only acceptable strategy.

**B. Restrictions and Prohibitions**

~~Any action or transaction not expressly permitted by this Policy is prohibited unless presented to and approved by the Investment Committee.~~

**C.B. Counterparty Exposure for Forwards, Options, and Swaps**

- 1.a. The greater of \$500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives. The counterparty exposure shall be integrated and managed with existing System counterparty exposures.
2. Transactions shall be executed with counterparties rated A- (S&P Standard & Poor's), or A- (Fitch) or A3 (Moody's) or higher by at least 1 of 3 rating agencies.

**VII. GENERAL**

~~Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on market-value basis, as recorded~~

by the System's custodian.

**VIII. GLOSSARY OF TERMS**

Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.

**INTERNALLY MANAGED PASSIVE CURRENCY OVERLAY  
PORTFOLIO PROGRAM- INTERNALLY MANAGED**

**November 13, 2006April 21, 2008**

**I. PURPOSE**

This document sets forth the investment policy ("the Policy") for the Passive Currency Overlay Portfolio- Internally Managed ("the Portfolio"). The design of this Policy ensures that the currency exposure of the California Public Employees' Retirement System's ("the System") international equity program is managed with prudence and care. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of international equity.

**II. STRATEGIC OBJECTIVES**

The Portfolio shall be managed to accomplish the following:

- A. Reduce the System's International Equity Program's risk due to currency volatility; and
- B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law. [This statement is now included in the Total Fund Statement of Investment Policy.]

**III. PERFORMANCE OBJECTIVE AND BENCHMARK**

The Internally Managed Passive Currency Overlay Portfolio Program ("Passive Program") shall control risk rather than generate return. The Passive Portfolio Program shall reduce risk versus the volatility of the underlying equity program portfolio. Results shall approximate that of the benchmark, within +/- ±50 basis points in a 12-month period. The benchmark is the fully hedged currency return of the developed markets portion of the Passive International Equity Index Fund.

The Passive Program benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.

Any other international program may be passively hedged to reduce risk with the approval of that asset class SIO. Since this is a passive hedge to reduce risk there is no performance objective and hence no benchmark.

**IIIV. INVESTMENT APPROACHES AND PARAMETERS**



## A. Investment Approaches

1. The Passive Program portfolio will be passively managed and will target the developed markets portion of the Passive International Equity Index Fund.

## B. Specific Parameters

1. The allocation to the Passive Portfolio Program shall represent a portion of the Total Currency Overlay Program. The percent of assets allocated to the Program shall be determined by considering the following:

- a. Cost versus expected attained risk reduction versus other alternatives; and
- b. Optimal impact to the Overlay overall Currency Management Program.

The Staff shall conduct the appropriate analyses to support such a recommendation.

2. The below table specifies allowable hedge ratio ranges:

### Permissible ~~Passively Managed~~ Hedge Ratio Ranges

Benchmark	Hedge Ratio Range
100%	95% - 105%

3. The Passive Portfolio Program shall track a fully hedged benchmark that reflects the specific currencies of the underlying equity portfolio program as specified in Section III.V. B. 2. of this Policy.
4. The Passive Portfolio Program shall execute currency transactions in the forward currency markets or in related currency derivative instruments over the long currency positions of the underlying program portfolio(s) of assets assigned to it.
5. The Passive Portfolio Program shall monitor its currency positions to avoid leverage. Currency positions taken shall constitute a designated hedge of the actual international assets identified in the underlying portfolio program.

6. ~~The System~~CalPERS shall allow wider tracking error should there be deliberate decisions to redefine the developed markets portion of the externally-managed ~~Passive International Equity Index Fund~~. This would include, but is not be restricted to the entry or /exit of individual countries or the major rebalancing of country weightings within the Index.
7. Implementation of ~~the~~Passive Portfolio Program shall comply at all times with ~~the System's~~CalPERS' investment policies including, but not limited to, the following:
  - a. Statement of Policy for Development of Derivatives Strategies ~~Investment Policy~~; and
  - b. Internal Program Operation Procedures Manual.

## **V. BENCHMARK**

~~The Passive Currency Overlay Portfolio Internally Managed Benchmark shall be a percentage of the currency weights of the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

~~Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System.~~

## **IV.III. DERIVATIVES AND LEVERAGE POLICY**

### **A. Forwards, Options, and Swaps**

1. Leverage shall be avoided as cited in Section II.V. B. 5.
2. The Passive Portfolio Program may buy or sell non-exchanged traded derivatives, which includes over-the-counter forwards, options, and swaps.
3. Bona fide hedging of foreign currency exposure is the only acceptable strategy.

### **B. Restrictions and Prohibitions**

~~Any action or transaction not expressly permitted by this Policy is prohibited unless presented to and approved by the Investment Committee.~~

**B.C. Counterparty Exposure for Forwards, Options, and Swaps**

1. The greater of \$500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives. ~~The counterparty exposure shall be integrated and managed with existing System counterparty exposures.~~
2. Transactions shall be executed with counterparties rated A- (~~S&P~~Standard & Poor's), or A- (Fitch) or A3 (Moody's) or higher by at least 1 of 3 rating agencies.

**V.GENERAL**

~~Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System.~~

**VI.GLOSSARY OF TERMS**

~~Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.~~

**INTERNALLY MANAGED ACTIVE CURRENCY OVERLAY PORTFOLIO PROGRAM -**  
**INTERNALLY MANAGED**

**November 13, 2006 April 21, 2008**

**I. PURPOSE**

~~This document sets forth the investment policy ("the Policy") for the Active Currency Overlay Portfolio Internally Managed ("the Portfolio"). The design of this Policy ensures that the currency exposure of the California Public Employees' Retirement System's ("the System") international equity program is managed with prudence and care. Additionally, use of this Policy provides assurance that there is sufficient flexibility in controlling investment risks and returns associated with this segment of international equity.~~

**II. STRATEGIC OBJECTIVES**

~~The Portfolio shall be managed to accomplish the following:~~

~~A. Enhance the Currency Overlay Program's total return;~~

~~B. Consider solely the interest of the System's participants and their beneficiaries in accordance with California State Law. [This statement is now included in the Total Fund Statement of Investment Policy.]~~

**III. PERFORMANCE OBJECTIVE AND BENCHMARK**

~~The performance objective of the Internally Managed Active Currency Overlay Program ("Active Program") is to Exceed the currency return of the developed markets portion of the International Equity Program, fully hedged.~~

~~The Active Program benchmark shall be a percentage of the currency weights in the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

**IIIIV. INVESTMENT APPROACHES AND PARAMETERS**

**A. Investment Approach**

The objective is to add incremental currency return by implementing various active strategies. Active management styles implemented in the program include:

1. Fundamental:- Over the long run, currency prices deviate from fair value based on cyclical behavior of economies. Fundamental strategies attempt to identify over and undervalued currencies by using various economic indicators such as inflation, growth or trade data.
2. Technical:- Technical strategies attempt to identify markets where prices are moving in clear and predictable trends. Price trends and stress points in currency markets can be identified and exploited using a number of indicators such as moving averages, chart patterns, support and resistance indicators and flow models.
3. Interest Rate (Carry):- Carry strategies seek to anticipate currency movements driven by differences and changes in national interest rates. Overweighting currencies with high yields and underweighting currencies with lower yields tends to produce excess returns.
4. Volatility:- Volatility strategies are used to exploit mispricing in currency options based on varying interpretations of changes in spot prices.

## **B. Parameters**

1. Shortfall Risk shall will be controlled by limiting the negative return to 300 basis points for a rolling 12 month period. A violation of this threshold shall require a review by the Senior Investment Officer of Global Fixed Income to determine if a partial or full liquidation of positions is warranted.
2. Benchmark Risk was reviewed by the Consultant who determined that the percentage of the currency weights addresses whether the developed markets portion of the Passive International Equity Program Index Portfolio is the appropriate reference point.
3. Currency Risk will be managed by limiting the percentage deviation from the index by the table below ~~is the risk of hedging currency differently than the index.~~ The following table specifies the allowable ranges. The table differentiates between major and minor currency pairs and specifies allowable ranges within which actual allocations can fluctuate. Allowable ranges for major currency pairs are between +/- ±20% of the benchmark weight, while minor currencies can vary between +/- ±10% of the benchmark weights. ~~Net portfolio weights must remain between 0% and 200% hedged.~~

## Country Currency Allowable Ranges

### Major Currency Pairs- Subject to index weights $\pm 20\%$

Currency	Benchmark country weight*	Permissible Range
Euro	3234%	1214% – 5254%
UK Sterling	2219%	-12% – 3942%
Japanese Yen	1922%	-12% – 3942%

### Minor Currency Pairs- Subject to index weights $\pm 10\%$

Currency	Benchmark country weight*	Range
Canadian Dollar	67%	-34% - 1716%
Swiss Franc	6%	-4% -16%
Australian Dollar	55%	-45% - 1615%
Hong Kong Dollar	34%	-67% - 1413%
Swedish Krona	2%	-8% -12%
Singapore Dollar	1%	-9% - 11%
Norwegian Kroner	1%	-9% - 11%
Danish Krone	1%	-9% - 11%
New Zealand Dollar	0.2%	-10% - 10%

\*Benchmark country weights as of ~~September~~ March 20062008. Total may not sum to 100% due to rounding.

**Net ~~Portfolio~~ Program Weight must remain between 0% and 200%, hedged.**

Index currencies and weights will change over time in line with movements in the underlying passive equity index portfolioprogram.

4. ~~Liquidity risk is the ease with which a specific amount can be sold at or near market prices. Liquidity r~~Risk must~~shall~~ be managed in a disciplined manner by maintaining numerous dealing relationships with geographically diverse counterparties.
5. Interest r~~Rate r~~Risk will be controlled by using forward contracts that are within 2 years of the benchmark. ~~is the price volatility produced by changes in the overall level of interest rates. Forward currency contracts are a function of domestic relative to foreign country interest rates. This risk is managed by using forward contracts that are within 2 years of the benchmark.~~

**~~V. BENCHMARK~~**

~~The Active Currency Overlay Portfolio Internally Managed Benchmark shall be a percentage of the currency weights in the Developed Markets portion of the Passive International Equity Program, fully hedged.~~

**~~III.VI. DERIVATIVES AND LEVERAGE POLICY~~****~~A. Forwards, Options, and Swaps~~**

~~The Active Portfolio Program may buy or sell exchange or non-exchanged traded derivatives, which includes over-the-counter forwards, options, and swaps.~~

**~~B. Restrictions and Prohibitions~~**

~~Any action or transaction not expressly permitted by this Policy is prohibited unless presented to and approved by the Investment Committee.~~

**~~CB. Counterparty Exposure for Forwards, Options, and Swaps~~**

- ~~1. The greater of \$500 million or 25% of the total notional derivative exposure can be maintained with any one counterparty for non-exchange traded derivatives. The counterparty exposure shall be integrated and managed with existing System counterparty exposures.~~
- ~~2. Transactions shall be executed with counterparties rated A- (S&PStandard & Poor's), or A- (Fitch) or A3 (Moody's) or higher by at least 1 of 3 rating agencies.~~

**~~VII. GENERAL~~**

~~Investors, managers, consultants, or other participants selected by the System shall make all calculations and computations on a market value basis as recorded by the System.~~

**~~VIII. GLOSSARY OF TERMS~~**

~~Definitions for key words used in this policy are located in the Fixed Income Glossary of Terms which is included in the System's Master Glossary of Terms.~~

Asset Class Glossary: Fixed Income  
Policy: Currency Overlay Program  
April 21, 2008

**Benchmark Risk**

Benchmark Risk addressed whether the index chosen is the appropriate reference point for the program in question. Addresses whether the developed markets portion of the Passive Equity Index Portfolio is the appropriate reference point.

**Chief Investment Officer**

Heads the CalPERS Investment Office and works with the Investment Committee to develop a long-term investment policy and asset allocation strategy for the Public Employees' Retirement Fund.

**Currency**

The monetary unit of a sovereign state.

**Currency Risk**

The risk of hedging currency differently than the index.

**Custodian**

A bank or other financial institution that provides custody of stock certificates and other assets of an institutional investor.

**Derivative**

An instrument whose value is based on the performance of an underlying financial asset, index, or other investment. Classes of derivatives include futures contracts, options, currency forward contracts, swaps, and options on futures.

**Developed Market**

A high-income country, as defined by the World Bank, that most investors consider to have a well-developed operating and regulatory structure for its capital markets. Generally, countries included in the Financial Times-Actuaries Index are considered to be developed markets.

**Externally Managed**

An outside money management firm retained under contract by CalPERS.

**Fitch Ratings**

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment-grade. Securities rated BB+ or below are considered to be speculative.



**Forward Contract**

An instrument that allows the purchase or sale of a specific quantity of a commodity, government security, foreign currency, or other financial instrument at the current price, with delivery and settlement at a specified future date.

**General Pension Fund Consultant**

An individual or organization that provides specialized professional assistance to the Investment Committee ~~CalPERS Board of Administration~~ in determining the pension fund's asset allocation model or optimal combination of investments in order to maximize risk-adjusted investment returns in a manner consistent with the State's long-term pension liabilities.

**Hedge (Hedging)**

A strategy used to offset investment risk. A perfect hedge is one eliminating the possibility of future gain or loss.

**Interest Rate Risk**

Interest Rate Risk is the price volatility produced by changes in the overall level of interest rates as measured by an option-adjusted duration.

**Leverage**

A condition where a portfolio's market obligation may exceed the market-value-adjusted capital commitment by the amount of borrowed capital (debt).

**Liquidity Risk**

Liquidity Risk is the ease with which an issue or specified amount can be sold at or near prevailing market prices.

**Moody's Investors Service**

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 9-symbol system. The ranges extend from the highest investment quality, which is Aaa, to the lowest credit rating, which is C. Securities rated Baa3 or greater are considered investment grade. Securities rated Ba1 or below are considered to be speculative.

**Option**

Contracts that give the purchaser the right, but not the obligation, to buy or sell an underlying instrument at a certain price (the exercise or strike price) on or before an agreed date (the exercise period). For this right, the purchaser pays a premium to the seller. The seller (writer) of an option has a duty to buy or sell at the strike price, should the purchaser exercise his right.

**Over-the-Counter (OTC)**

The market for securities and traded products that are not listed on the major exchanges. OTC options are options with negotiated premium, strike price, and expiration date.

**Ratings**

Various alphabetical and numerical designations used by institutional investors, Wall Street underwriters, and commercial rating companies to give relative indications of bond and note creditworthiness. Standard & Poor's and Fitch use the same system, starting with their highest rating of AAA, AA, A, BBB, BB, B, CCC, CC, C, and D for default. Moody's Investors Services uses Aaa, Aa, A, Baa, Ba, B, Caa, Ca, C, and D. Each of the services use + or - or +1 to indicate half steps in between. The top four grades are considered investment grade ratings.

**Security**

Instrument that signifies an ownership position in a corporation (stock), a creditor relationship with a corporation or governmental body (bond), or rights to ownership such as those represented by an option, subscription right, and subscription warrant.

**Senior Investment Officer of Fixed Income**

The Senior Investment Officer is responsible for all Global Fixed Income programs and reports directly to the Chief Investment Officer of CalPERS.

**Shortfall Risk**

The risk of underperforming the benchmark

**Standard & Poor's (S&P)**

A nationally-recognized credit rating agency that grades the investment quality of bonds in a 10-symbol system. The ranges extend from the highest investment quality, which is AAA, to the lowest credit rating, which is D. Securities rated BBB- or greater are considered investment grade. Securities rated BB+ or below are considered speculative.

**Swap**

Private agreement between two companies to exchange cash flows in the future according to a prearranged formula.